

## **EXHIBIT 9**

### **Supplemental Environmental Projects Plan**

#### **I. Introduction**

Defendants shall perform the streambank stabilization, leachate control, greenway creation, and in-stream restoration projects described below. These Supplemental Environmental Projects (SEPs) shall be performed using sound, generally accepted engineering practices; in a manner consistent with industry standards, regulatory requirements and natural channel design techniques; and consistent with the goal of maximizing environmental benefits. Nothing herein shall be construed as relieving Defendants of the duty to comply with all federal, state and ORSANCO requirements that may be applicable to performance of these projects, including the duty to apply for and comply with any federal or state permitting requirements.

Defendants shall complete, and submit to U.S. EPA/Ohio EPA/ORSANCO, documents containing the detailed design for each of the project components described in Sections II - IV below at least 6 months before Defendants plan to commence construction on the specific component. If Defendants are required to apply for any federal or state permits as part of implementing these projects, Defendants also shall provide copies of all such permit applications to U.S. EPA/Ohio EPA/ORSANCO. If Defendants are required to submit notifications or other documents pursuant to the terms of any federal or state permits that are applicable to these projects, Defendants also shall provide copies of all such notifications and other documents to U.S. EPA/Ohio EPA/ORSANCO. Defendants shall send all such copies of applications, notifications or other documents to U.S. EPA/Ohio EPA/ORSANCO on the dates that Defendants submit the originals of those applications, notifications or other documents to the appropriate federal and/or State regulatory authorities in accordance with federal or State law. All documents described in this paragraph shall be submitted under this Consent Decree to U.S. EPA/Ohio EPA/ORSANCO for review only, although U.S. EPA/Ohio EPA/ORSANCO may provide comments to Defendants based upon their review of those documents. Submission of any documents to U.S. EPA/Ohio EPA/ORSANCO under the terms of this Consent Decree shall not be in lieu of submission of such documents to the appropriate federal and/or State regulatory authorities in the manner proscribed by law for submission of such documents.

#### **II. Caldwell Seymour Greenway and Ecological Restoration Project**

The proposed streambank stabilization project to be implemented with SEP funds is designated as Reach 1, located between North Bend Road and Seymour Avenue, and Reach 2, located between the Seymour Avenue Bridge and the confluence of the Mill Creek with the Seymour Creek within the Caldwell Seymour (CS) area of the City of

Cincinnati (see attached maps). It consists of approximately 3,850 ft of stream length stabilization using a method known as Soil Bioengineering. The SEP funds will be used to provide geotechnical investigations, hydrologic/hydraulic studies, and soil bioengineering design and construction.

According to a 2002 physical inventory and assessment of streambanks, the Mill Creek (from the Caldwell parks upstream of North Bend Road downstream to Center Hill Road) suffers from streambank erosion from a number of natural and anthropomorphic causes. In addition, there is a major erosion problem along Seymour Creek at its confluence with Mill Creek. Generally, the streambanks have steep vertical slopes ranging from four feet to over fifteen feet high. There is an overall vegetative cover of about 30% to 50%. Streambank erosion affects the toe, lower bank, upper bank and whole bank. The erosion is contributing to water quality problems including nutrient pollution, sedimentation, total suspended solids and turbidity. Sedimentation is adversely affecting aquatic life by depleting oxygen and smothering aquatic habitat. In areas where riparian vegetation is sparse, stormwater runoff conveys nonpoint source pollutants and causes adverse physical impacts to the river system. Unstable streambanks must be addressed prior to, or in tandem with, other ecological restoration activities including riparian corridor and floodplain reforestation and greenway trail development.

Soil bioengineering is based on sound engineering and an understanding of river ecology, hydrology/hydraulics, and natural channel design techniques relying heavily on the use of vegetation to stabilize streambanks and may incorporate a rock toe and other traditional engineering treatments when necessary. Such systems are environmentally sustainable because they are self-maintaining and provide significant environmental benefits, including habitat and food sources for wildlife and improvements in water quality. All of these multiple benefits can strengthen and support the City's Mill Creek Greenway/Ecological Restoration Program and community development goals in this region of the city and maximize the value of the MSD SEP investment.

The cost estimate for construction includes labor, materials and equipment for excavation and earth moving; toe protection installation (full length); grade control (low head weirs in some sections); low flow channel construction (in some areas); compound channel (in some sections); upland riparian bank stabilization and restoration using soil bioengineering methods.

The scope and estimated costs of this streambank stabilization and greenway project are:

1. Streambank Restoration in Mill Creek, Reach 1: North Bend Road Bridge to Seymour Avenue Bridge -- Estimated Subtotal: \$1,600,000
  - Geotechnical investigation (for entire 1.3 miles)
  - Hydrology/hydraulics study (for entire 1.3 miles)
  - Soil bioengineering design (for River Reach 1-includes 2 years of monitoring)
  - Reach 1 soil bioengineering installation (1,300 linear feet Mill Creek, affecting 2,600 linear feet of streambanks)

MCRP environmental services consulting contract: \$60,000

2. Streambank Restoration in Mill Creek Reach 2A: Seymour Avenue Bridge to Seymour Creek Confluence -- Estimated Subtotal: \$2,100,000  
Soil bioengineering design (includes two years of monitoring)  
Reach 2A soil bioengineering installation (2,550 linear feet Mill Creek, affecting 5,100 linear feet of streambanks)
3. Caldwell Seymour Greenway Trail -- Estimated Subtotal: \$1,050,000  
Final design, engineering and construction supervision  
Trail construction (5,808 linear feet @ \$77.50/linear feet + 6% contingency)  
Riparian restoration/landscaping  
Fencing  
(New) Greenway buffer between Center Hill Landfill, Seymour Creek and Mill Creek and trail extension to Center Hill Road

**Total Estimated Cost: \$4,750,000**

#### **SCHEDULE**

1. Streambank Restoration in Mill Creek, Reach 1: North Bend Road Bridge to Seymour Avenue Bridge--- detailed design and construction to be completed within 42 months of entry of the Consent Decree. The parties recognize that Defendants may need to request extension to this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.
2. Streambank restoration in Mill Creek Reach 2A: Seymour Avenue Bridge to Seymour Creek Confluence--detailed design and construction to be completed within 24 months of the completion of Item 1 of this SEP. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.
3. Caldwell Seymour Greenway Trail--detailed design and construction to be completed within 18 months of completion of Items 1 & 2 of this SEP. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied

#### **III. In-Stream Habitat Restoration Project**

Local environmental activists have identified the need to restore in-stream habitat via structural changes to the Mill Creek's channel/bed. Two such environmental projects have been identified and proposed in the lower reach of Mill Creek. This effort has been supported/encouraged by numerous local stakeholders including Ohio Kentucky and Indiana Regional Council of Governments (OKI), Dr. Michael Miller (University of

Cincinnati), Dr. Stan Hedeon (Xavier University), the Mill Creek Watershed Council and the Mill Creek Restoration Project.

**A. Hopple Street Project**

Hopple Street Interceptor Sewer is an interceptor sewer crossing located downstream of the Hopple Street Viaduct. This interceptor sewer crossing is fully encased in concrete. There is a failure in the bank allowing the majority of flow to pass over the pipe on the western bank. There is a large gravel bar located along the western bank just downstream. This works as a barrier to fish migration.

The goals of this project will be to redirect the main flow of the stream back to the center of the channel and to allow the flow to dissipate energy across a structure on the backside of the interceptor sewer, thus preventing the creation of plunge pool while providing numerous benefits. Newbury riffle and bank stabilization are the proposed action.

**B. Gest Street Project**

Low Water Crossing in the vicinity of the Gest Street Water Reclamation Facility is an abandoned road across Mill Creek. Severe bank erosion is a major feature of this location. The removal of this structure will enhance flow, reduce erosion, and provide aquatic habitat. Proposed action is removal of crossing road and bank stabilization.

This project accomplishes the following goals:

- Removes a significant barrier to fish migration up the Mill Creek, thus improving species propagation.

- Reoxygenation of water in the Creek via Newbury Riffle installation that will improve overall habitat and increase fish and aquatic biology diversification and health.

- Removes a barrier from the streambed that impedes recreational use and human exposure to the Creek.

- Extends the green space along the creek in accordance with the Mill Creek Restoration Project's Greenway Master Plan.

- Improves the environmental condition in an environmental justice community.

**Total Estimated Cost: \$250,000.**

## **SCHEDULE**

1. Hopple Street Interceptor/Newbury Riffle---detailed design and construction to be completed within 24 months of entry of the Consent Decree. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.
2. Gest Street Low Water Crossing removal---detailed design and construction to be completed within 24 months of entry of this Consent Decree. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.

## **IV. Village of Elmwood Place Waste Facility Remediation**

The Village of Elmwood Place Waste Facility is a six acre landfill that is owned and historically was operated by the Village of Elmwood Place. The landfill ceased operations in the mid-1960s. The landfill is located northeast of the junction of Este Avenue and Center Hill Road in Cincinnati, Hamilton County, Ohio, and it has approximately 1000 feet of frontage on the Mill Creek, a major urban waterway, which is the focus of significant local restoration efforts.

The Village of Elmwood Place has little or no control measures in place at the landfill. As such, garbage protrudes from the bank of the landfill into the Mill Creek, and leachate from the landfill flows to the Mill Creek. Although the Village of Elmwood Place has expressed willingness to clean up their landfill property and bring it into regulatory compliance, it does not have the financial capability to perform the needed assessment and remedial work. The Village of Elmwood is interested in restoring this property as green space to establish a green buffer between any new development in the area and the Mill Creek. This plan is consistent with the goals of the Mill Creek Restoration Project and the Mill Creek Watershed Council.

At a minimum, in order to abate continuous pollution from the landfill to the Mill Creek, the landfill bank bordering the Mill Creek must be stabilized, and a leachate collection system must be installed. Performing this work will accomplish the following goals:

Facilitates the environmental assessment of the landfill and the creation of a remedial action plan for the Elmwood Place landfill.

Abates pollution emanating from the Elmwood Place landfill to the Mill Creek.

Assists in extending green space along the bank of the Mill Creek in accordance with the Mill Creek Restoration Project's Greenway Master Plan.

Allows the abatement of potential human health threats in an environmental justice community.

The bank stabilization and leachate collection system would be similar to that installed by the City of Cincinnati at the Center Hill Landfill. The scope and estimated costs for this project would be:

1. Stabilization of bank of landfill along Mill Creek, using bioengineering: \$300,000.
2. Installation of leachate control system: \$55,000.

**Total Estimated Cost: \$355,000.**

#### **SCHEDULE**

Bank stabilization and installation of leachate control---detailed design and construction to be completed within 24 months of the entry of this Consent Decree. The parties recognize that Defendants may need to request extension of this schedule in light of delays in permit or easement processes controlled by third parties, which extension will not be unreasonably denied.

#### **V. Additional Projects**

Defendants expect to spend at least \$5,300,000 performing the projects described above. Defendants may perform additional streambank stabilization, greenway creation or in-stream restoration projects that are consistent with the goal of maximizing environmental benefits in or to the Mill Creek, provided that Defendants: (1) notify U.S. EPA/Ohio/ORSANCO in writing of their intention to perform such additional projects as soon as Defendants determine that they intend to perform such additional projects and include a detailed description of the project that they intend to perform. Upon approval of the proposed project(s) by U.S. EPA/Ohio EPA/ORSANCO, Defendants shall comply with the provisions described in Section I of this Plan and complete detailed design and construction of such additional projects, as expeditiously as practicable, but no later than 36 months following completion of the projects specified above in Sections II and III of this Plan.



**GREENWAY**  
Mill Creek Restoration Project

**CALDWELL/SEYMOUR  
GREENWAY TRAIL**



**CURRENT PLAN**

**Exhibit 9 - Map A**

Mill Creek Restoration Project

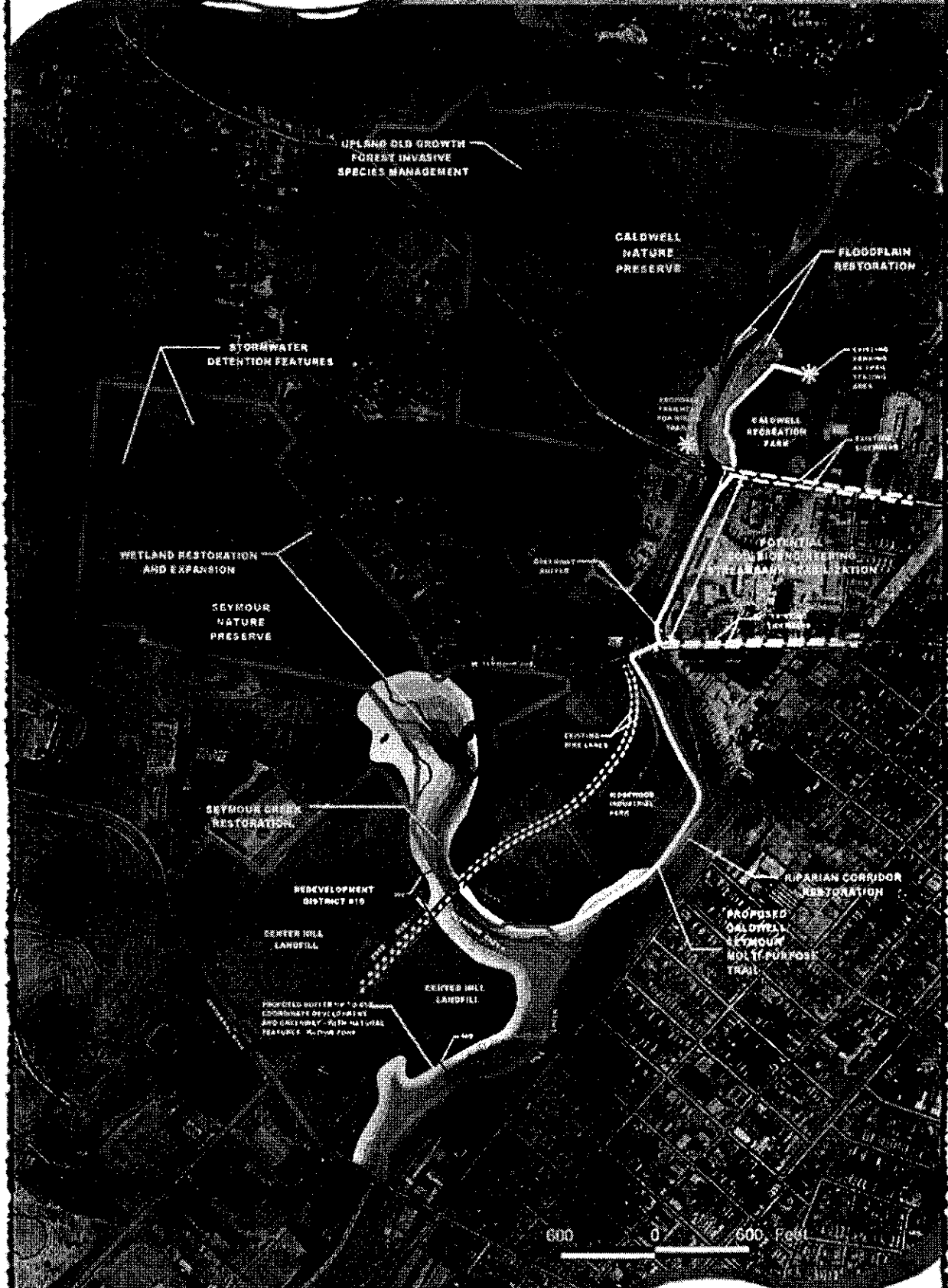
City of Cincinnati  
Department of Public Works  
Engineering Division  
7600 Riverchase Lane  
Cincinnati, OH 45240

City of Cincinnati



**GREENWAY**  
Mill Creek Restoration Project

# CALDWELL/SEYMOUR ECOLOGICAL RESTORATION OPPORTUNITIES



MARCH 27, 2002

**Exhibit 9 - Map 8**

Mill Creek Restoration Project

Prepared by: [illegible]  
[illegible]  
[illegible]  
[illegible]  
[illegible]  
City of Cincinnati